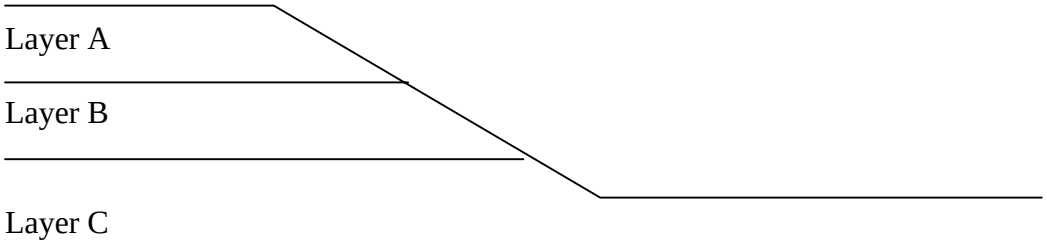
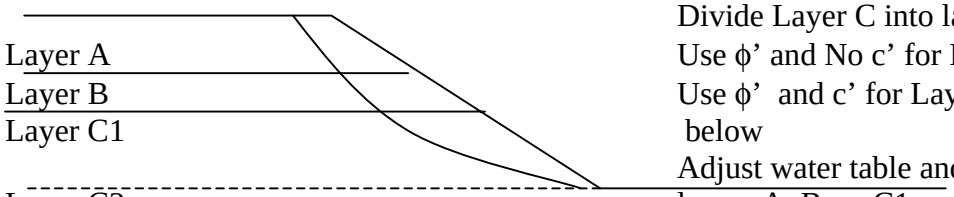
Procedure For A Fill Slope Slide

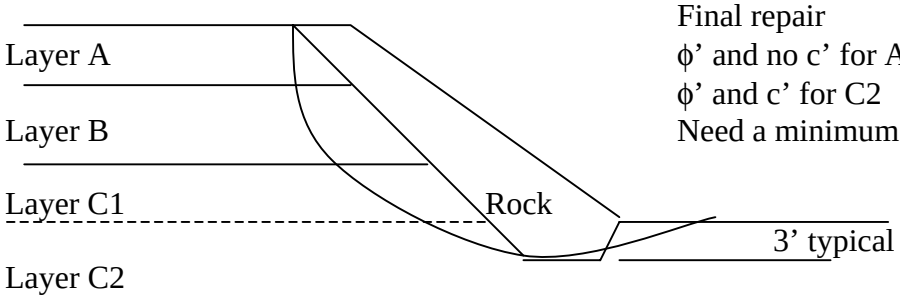


Step 1



Divide Layer C into layers C1 and C2
Use ϕ' and No c' for Layers A, B, and C1
Use ϕ' and c' for Layer C2 and layers below
Adjust water table and possibly give layers A, B, or C1 some c' until you get a Safety factor of 1

Step 2



Use parameters determined in Step 1 for the Final repair
ϕ' and no c' for A, B, and C1
ϕ' and c' for C2
Need a minimum SF of 1.3

This procedure is only for fill slope slides that do not involve the foundation and where flattening the slope is not an option.
Rock Fill weight = 135 pcf ϕ'=35 degrees c'= 0
Typical fill slopes are on a 2:1
Beginning at the top of the slope and a minimum distance of 6' back from the crest of the slope, (measured perpendicular to the 2:1 slope), the slope is excavated and benched typically on a 1.5:1 slope to a point 3' below the toe of the slope. The slope is then reconstructed using rock fill. The beginning thickness of the rock fill, excavation slope, and embedment depth may be adjusted to get the required safety factor.